Supporting Information for

**Bi₂MoO₆/BiVO₄ heterojunction electrode with enhanced photoelectrochemical properties**

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**Additional Figures and Discussions**

Fig. S1 SEM images of (A) BiVO₄ film and (B) Bi₂MoO₆/ BiVO₄ film, the corresponding cross views of (C) BiVO₄ film and (D) Bi₂MoO₆/ BiVO₄ film.

Fig. S2 Linear sweep voltammetry of films measured in 0.1 M Na₂SO₄ aqueous solution under AM 1.5 illumination passing through the fluorine-doped tin oxide (FTO) coated glass substrate.
Fig. S3 (A) XPS fully scanned spectrum of the Bi$_2$MoO$_6$ and Bi$_2$MoO$_6$/BiVO$_4$, in-situ XPS spectra of (B) Bi (C) Mo (D) O of the Bi$_2$MoO$_6$ nanorod array.

Fig. S4 The enlarged in-situ XPS spectra of (B) Bi (C) Mo (D) O of the Bi$_2$MoO$_6$ nanorod array.

Fig. S5 The in-situ XPS spectra of (A) Bi (B) Mo (C) V (D) O of the Bi$_2$MoO$_6$/BiVO$_4$. 